

IMMUNIZATION PROGRAM CHILD PROFILE ECONOMIC ORDER QUANTITY TIP OF THE WEEK

This document contains the Economic Order Quantity (EOQ) Tip of the Week articles published in the weekly Vaccine Management Update emails between July 1, 2010 and November 5, 2010. The EOQ Tip of the Week articles were used to create awareness and prepare Local Health Jurisdictions for upcoming changes in vaccine ordering guidelines with the implementation of Economic Order Quantity.

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07/01/2010 - Economic Order Quantity (EOQ) Introduction:

EOQ is the Centers for Disease Control and Prevention national standard to effectively manage the federal vaccine program. The goal of EOQ is to balance vaccine order size, order frequency, timing of orders, and inventory management. Last year, we had over 300 providers that placed between 13 and 25 orders in a twelve-month period. Many of these additional orders were for single antigens. One of the "quick wins" we'd like to focus on first is to reduce the number of inappropriate single antigen orders. This will help us show the CDC we are making progress on reducing the number of providers placing more than 12 orders per year.

Beginning in the month of July, we'll be contacting LHJs with provider orders that fall into these categories so we can get started with our work on EOQ. Stay tuned – we'll be in contact soon.

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<u>07/09/2010 – EOQ Order Timing:</u>

"Order Timing" is the "when" of EOQ. A key objective of EOQ (economic order quantity) is to distribute the placement of vaccine orders throughout the month. Most of Washington's 800 monthly vaccine orders are placed between the 1st and the 15th of the month. Add another 900 flu vaccine orders per month, multiply by 62 (the number of CDC grantees) and you can see why the CDC needs to have orders spread throughout the month.

Meeting this standard will mean some changes for the timing and frequency of vaccine order placement for us. Over the next several months, we'll start working to comply with the CDC EOQ best practice standard. We will work with you to help minimize the impact of changes on you and your providers.

Order Timing is one aspect of EOQ. In the coming weeks we'll share more about other EOQ principles with everyone as part of our regular Friday updates. We'll also be reaching out to a small group of LHJs as we mentioned last week to get us started on this effort.

EOQ Order Timing: Points to Ponder While We Prepare:

- Are your providers on an ordering schedule? Are they consistent with it or will they need some help to stay on track?
- To shift provider ordering to the second half of the month, could they submit their orders a week early for the coming month? (e.g., place their August order the last week of July, rather than wait until the first week of August)
- Are there things you can do with your order and approval processes to support a change in order timing?

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07/16/2010 - EOQ Order Frequency:

Last week we talked about Order Timing. Another key objective of EOQ (Economic Order Quantity) is to reduce how often orders are placed. As it is now, most providers place orders every month. The CDC goal is to decrease the frequency of orders to reduce the time and cost of filling and shipping those orders. To accomplish this, each provider will have an Order Frequency assignment in addition to their Order Timing assignment.

Order Frequency is determined by the amount of publicly-funded vaccines shipped to a provider each year. Here are the new CDC EOQ Standards:

Order Frequency	Doses Per Year	
Monthly (high volume)	6,000 plus	
Every 2 Months (medium volume)	800 – 5,999	
Quarterly (low volume)	200 – 799	

Most LHJ's will have providers assigned to each of the Order Frequency levels. This means you will have some providers who will continue to order every month, some providers who will order every other month, and some providers who will order quarterly. A very few providers may order on less than a quarterly basis.

Order Frequency does not affect Order Timing. A low-volume provider assigned to order during the second half of the month, for example, would place their orders quarterly after the 16th of the month.

Some providers may not have enough storage capacity to change their Order Frequency as suggested by the CDC EOQ Standards. We will work with you to balance order frequency with provider vaccine needs and storage capacity.

Order Timing and Order Frequency are just two aspects of EOQ. Next week we'll share more about Recommended Order Quantities and Safety Stock guidelines.

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07/23/2010 - EOQ Recommended Order Quantity:

In addition to timing and frequency, EOQ (Economic Order Quantity) also focuses on ordering the right amount of vaccine. **Recommended Order Quantity** takes the guesswork out of determining how much of each vaccine is needed for a given order cycle (e.g. monthly, every two months, quarterly, etc.).

Recommended Order Quantity is based on each provider's order history, usage, physical inventory, and ordering frequency. It includes adjustments for the busy, back-to-school season and takes into account the need for a 30-day **safety stock**. **Safety stock** is based on a calendar month which equals about 20 business days.

We are developing both manual and automated tools to help providers determine **Recommended Order Quantity**. These tools will save time and help everyone feel more confident that the right amount of vaccine is being ordered. We (and the CDC) won't have to worry as much about vaccine wastage from providers ordering or stocking too much, or providers running out of vaccine from ordering too little.

We are starting our work with a few counties on EOQ very soon. In future updates we'll share information about our progress and lessons learned along the way.

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07/30/2010 - EOQ Regional Implementation:

We are taking a little different approach to implementing EOQ than has been used in the past for statewide rollouts. Instead of bringing all LHJs onboard at once, we are taking a regional Page 3 of 12

approach to implementing EOQ across the state. Our strategy is to work with small groups of LHJs to discuss implementation, provide information and tools and follow-up. We will monitor and adjust our strategy to support these small groups of LHJs as they work with providers to implement EOQ best practices.

We had our first conference call this week with 4 LHJs from the southeast region of the state; Adams, Asotin, Garfield, and Walla Walla. Cowlitz County joined the call and will be getting an early start with EOQ. We had a great discussion, and appreciate their participation in helping us refine and improve our implementation methods as we get started. We are flexible, so while we proceed with our regional approach, if your LHJ would like, we're happy to get you started with EOQ at any time!

We will connect with our next small group of LHJS for the EOQ rollout in October.

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08/05/2010 - EOQ The Challenge is On:

We've started a friendly competition among LHJs called the **EOQ Challenge – Reducing Single Antigen Orders**. The challenge is to see which LHJ can have the fewest inappropriate single antigen orders from August through October. Throughout this friendly competition we'll be tracking single antigen orders for all LHJs. We'll post the results at the end of each month to let you know how well you're doing.

What causes single antigen orders? For some providers, hospitals using Hep B for example, it is appropriate to order single antigens. For most providers, however, single antigen orders occur because inventory hasn't been closely monitored or a vaccine is missed when placing an order. This missed vaccine then results in a second order being placed just a week or two later.

If you notice providers are placing inappropriate single antigen orders please follow-up before approving these orders. Here are a few things to keep in mind as you work to limit single antigen orders:

- Work with your providers on order planning to reduce the need for single antigen orders (e.g. look further ahead at their potential vaccine needs; include all vaccines they need, etc.).
- If providers don't order all vaccines when they place their order:
 - Check their inventory and if it seems low for a vaccine call and ask if they left the vaccine off by mistake.
- If providers place a full order, and then later in the month place a second single antigen order:
 - Call and ask what the circumstances are for the single antigen order.
 - Coach them on how to calculate their order in the future to avoid single antigen orders.

- Let them know that future single antigen orders might be held until they place their next order.
- If it is <u>absolutely necessary</u> single antigen orders can be placed we don't want providers to run out of vaccine.

The goal of reducing single antigen orders should become a standard of practice that continues beyond this three-month challenge period. Single antigen orders are just one EOQ area the CDC will be monitoring. Making these changes now will help us show the CDC we are already making progress towards the overall goals of EOQ. Hopefully this friendly little competition will also help us to have a bit of fun along the way.

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<u>08/13/2010 – EOQ Monitoring Inventory:</u>

Based on the new CDC EOQ order frequency standards, many of our providers will need to adjust how often they place an order. Below is a table comparing the 2007 Tiered Order Frequency (TOF) standards and the new EOQ Order Frequency standards.

Order Frequency	Doses Per Year 2007 TOF Standards	Doses Per Year CDC EOQ Standards
Monthly (high volume)	>2000	6,000 plus
Every 2 Months (medium volume)	500 – 2,000	800 – 5,999
Quarterly (low volume)	<500	200 – 799
Every 6 Months (very low volume)	NA	0 – 199

These changes mean that we will see larger, less frequent orders from most providers. It will be even more important to monitor provider inventory to be sure that we don't experience an increase in expired or wasted vaccine. Other states that have moved to the new EOQ standards are not reporting increased waste.

Here are just a few things to keep in mind – these are not new ideas, but are more important than ever with the changes to EOQ standards:

- If a provider appears to have a lot of safety stock, work with the provider to reduce inventory to maintain only one month's worth of reserve vaccine.
- Work with providers to be sure vaccine is being rotated when shipments are received so that older vaccine will be used first.
- Pay particular attention to vaccine expiration dates when reviewing accountability reports. If vaccine is due to expire before the next order will be placed, follow-up with the provider.

Providers that have had storage and handling issues in the past may need to be monitored more closely. Some providers may need to have their order frequency adjusted to minimize potential losses. LHJs will need to continue to work with individual providers to determine the best inventory levels to maintain.

08/20/2010 - EOQ Frequently Asked Questions:

Now that we've been sharing information about EOQ for several weeks, we've started to gather frequently asked questions. Below are a few of the questions we've heard the most often in recent weeks.

Question: Does EOQ apply to all publicly funded vaccine orders?

Answer: While EOQ applies to most VFC vaccines, it does <u>not</u> apply to seasonal influenza vaccine or vaccines with limited availability. These vaccines do not have to be ordered according to EOQ schedules.

Question: Is participation mandatory?

Answer: Eventually, yes. All providers who order publicly-funded vaccine will be required to order according to their assigned order frequency, order timing, and recommended order quantity.

Question: What if a provider runs out of publicly-funded vaccine?

Answer: No matter when a provider is scheduled to order, they may place an order if they are in danger of running out of publicly-funded vaccine. EOQ tools should help avoid running out of publicly-funded vaccines, so this shouldn't happen very often. CDC recommends keeping a 30-day safety stock of publicly-funded vaccines to help ensure that they do not run out. The 30-day safety stock is already built into the EOQ tools to help ensure that providers order the right amount of publicly-funded vaccine.

Please keep asking those questions! The more questions you ask the more information gets shared. In the near future we'll have the EOQ web page available which will include a Frequently Asked Questions section. You can help us to make the web page better by sharing your questions now.

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08/27/2010 - EOQ Changes to CHILD Profile:

To help support you and your providers with vaccine ordering, we're updating CHILD Profile to help monitor EOQ compliance. Some of the system updates will be implemented at the end of this year. Here's what you can expect to see in 2011:

- Each provider's EOQ frequency (how often to order), timing (which weeks to order), and schedule (which months to order) will be displayed on Create Order screen.
- When a provider places an order, the system will check to see if the provider is ordering within their EOQ assignments. If the order is outside of the EOQ assignments, the order will be flagged for manual review.

- The system will also check to see if the provider is ordering the right amount of vaccine. The recommended order quantity for each vaccine will display on the Create Order screen. The amount of vaccine ordered will be checked against the Recommended Order Quantity when the order is submitted. If the order is outside the pre-set thresholds, the order will be flagged for manual review.
- The system will not stop the provider from placing an order just because it falls outside the EOQ parameters.

In addition to monitoring ordering behavior, by capturing this information we'll be able to track our overall progress towards meeting the CDC goals for EOQ. Reports and data exports will help us to determine whether adjustments are needed to ensure that Washington State is consistently balancing our publicly funded vaccine orders throughout the year.

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09/03/2010 - EOQ Challenge - First Month Results:

Congratulations! You've completed the first month of the EOQ Challenge – Reducing Single Antigen Orders. Attached are the August results by LHJ for this challenge. Overall, the volume of single antigen orders isn't too bad, but we definitely have some work to do.

See the EOQ Challenge-Reducing Single Antigen Orders Results.pdf for results by LHJ.

The statewide goal is to keep single antigen orders at or below 3% of our total orders. In August, 7.4% of the orders were for single antigens. While this is an improvement over the average of 11% for the first six months of 2010, we need to work towards cutting the number of single antigens orders in half over the next few months.

Here are a few ideas on how to work towards this goal with your providers:

- Work with your providers on order planning to reduce the need for single antigen orders (e.g. look further ahead at their potential vaccine needs; include all vaccines they need in each order, etc.).
- If providers don't order all vaccines when they place their order, check their inventory. If it seems low for a vaccine, call them and ask if they left the vaccine off by mistake.
- If providers place a full order, and then later in the month place a second single antigen order:
 - Call them and ask what the circumstances are for the single antigen order.
 - Coach them about how to calculate their order in the future to avoid single antigen orders.
 - Let them know that future single antigen orders might be held until they place their next order.

Our goal is not to eliminate single antigen orders. We know there are circumstances outside of the provider's control that will occasionally require single antigen orders. If it is absolutely

necessary single antigen orders can be placed - we don't want providers to run out of vaccine.

<u>Please order Flu vaccine without concern for how it might impact EOQ!</u> EOQ ordering schedules do <u>not</u> include orders for Influenza vaccine. Seasonal increases in single antigen orders due to flu vaccine are fully expected.

Please consider sharing ideas on how you're working with your providers towards this goal. Keep up the great work and we will continue to see the number of inappropriate single antigen orders decrease.

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09/10/2010 - EOQ Implementation Approach:

We mentioned a few weeks ago that we are taking a regional approach to implementing EOQ. To do this we are assigning LHJs to "training groups" based on their general location within the state. Each group consists of 2 to 5 LHJs depending on the size of the LHJs. Each training group will then be assigned a Start Month.

Start Month assignments are very important. The Start Month is when the providers within each LHJ are expected to begin ordering according to the new EOQ schedules. Assigning a Start Month ensures that vaccine orders will be appropriately disbursed throughout the year. Once we begin the EOQ roll-out, changing a Start Month could significantly impact our ability to meet the CDC goals for EOQ. Start Months are tentatively scheduled for December 2010 through May 2011, with training beginning in late October and early November. LHJ training will be scheduled 4 to 6 weeks before the assigned Start Month.

We are working on the Start Month schedule now. We hope to have a tentative schedule within the next couple of weeks. We'll then be looking to you for your input. Your willingness to work with us on finalizing the schedule is essential to our success.

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09/17/2010 - EOQ Things to Consider Now:

We have met with several LHJs as we prepare to roll out EOQ statewide, and our 5 pilot LHJs are progressing with EOQ rollout in their jurisdictions. We're getting valuable input from them and want to share some of what we've learned so far to help you as you begin to prepare for EOQ in the coming months.

Vaccine Expiration Dates:

Create more awareness around monitoring expiration dates.

With EOQ providers will be ordering and storing larger quantities of vaccine. Providers and LHJs will need to pay even closer attention to expiration dates, and the monitoring of the inventory reporting section of the Provider's Monthly Report of Vaccine Usage.

- Providers will need to compare the expiration date on their vaccine with their next scheduled order date.
- LHJs will need to remind providers to let them know 3 months in advance if they have vaccine that will expire so the LHJ can transfer the vaccine and it can be used and not wasted.

Storage Capacity:

Focus on storage and equipment. No provider should be using a dorm style refrigerator for overnight storage of vaccine – they should be replaced now. Providers should be monitoring their inventory and keeping only 30 – 45 day safety stock on hand. EOQ order quantities and scheduling will require these issues to be addressed, and starting those conversations with providers now may help make the EOQ process go more smoothly.

Reminders: We'll be sharing the tentative EOQ roll-out schedule soon, and are planning an all LHJ call about EOQ for November. Stay tuned for join information for that call, and links to our website with EOQ information later this month.

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09/24/2010 - EOQ Tentative Implementation Schedule:

It's finally here! The tentative EOQ Implementation Schedule is attached for your review. Start Month(s) and Order Timing schedules have been assigned to each LHJ to ensure that vaccine orders for Washington will be appropriately disbursed throughout the year. Adams, Asotin, Cowlitz, Garfield and Walla Walla started EOQ in September. The next group (Kittitas, Klickitat, Lewis, Skamania, Thurston, Wahkiakum, and Yakima) will get started in December. We look forward to working with you as we continue to implement EOQ in Washington.

See the EOQ Implementation Schedule v2 for details.

About 4 weeks before your assigned Start Month, we will connect with you to provide training to help you get started. A target schedule for introductory and follow-up conference calls for each group is attached. **Mark your calendars** - We will have an all LHJ conference call on Tuesday, October 26th, at 2:00 p.m. to kick-off things off.

See the EOQ Conference Call Schedule v4 for details.

Please review both the implementation schedule and conference call schedule at your earliest convenience. Contact Karen Meranda by email or phone with any concerns or questions about your assigned Start Month (see contact information below). Because we need to balance ordering for the entire state, any changes to the Start Month for one LHJ could impact other LHJs. We will do our best to make adjustments that will meet your needs.

Please contact Karen with any concerns by October 8th. After this date, we will begin sending meeting invitations for the training group conference calls.

To Recap - What's Happening Next?

- 1. LHJs review tentative implementation schedule by October 8th.
- 2. Implementation schedule is finalized by October 15th.
- 3. All LHJ Kick-off conference call on October 26th.
- 4. Training group conference calls begin the first week in November (invitations will be sent based on the finalized implementation schedule).

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10/08/2010 - EOQ Challenge - Second Month Results:

Congratulations! You've completed the second month of the EOQ Challenge – Reducing Single Antigen Orders. And what a terrific month! Half as many single antigen orders were placed in September as there were in August. This brings the statewide percentage of single antigen orders down to 3.6 percent.

Attached are the results, by LHJ, for the first two months of this challenge.

See the EOQ Challenge-Reducing Single Antigen Orders Results.pdf for results by LHJ.

Thanks goes to YOU for doing such a great job of monitoring and limiting single antigen orders. Because of your efforts we're very close to reaching the statewide goal of reducing single antigen orders to 3 percent or less of our total orders.

Please remember, our goal is not to eliminate single antigen orders. We know there are circumstances outside of the provider's control that will occasionally require single antigen orders. If it is absolutely necessary single antigen orders can be placed - we don't want providers to run out of vaccine. Also, remember flu vaccine orders are not subject to EOQ ordering schedules and do not count as single antigen orders.

Thank you - keep up the great work!

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10/15/2010 – EOQ Conference Call/Training Schedule:

Attached is the EOQ LHJ conference call schedule for each LHJ EOQ training group. Over the last 3 to 4 months a lot of information regarding EOQ has been communicated through the weekly updates. The week of October 25th we will kick off the statewide roll-out of EOQ. After the initial call, each group of LHJs will have conference calls to get them started with implementation. The conference calls will reinforce what has been shared and provide the detail LHJs need to implement EOQ with their providers. **All LHJs are encouraged to participate.** Here's what you can expect:

October 26 – All LHJ Conference Call (2:00 – 3:00 p.m.)

Objectives: Set the stage for the EOQ roll out.

1 month before start month – Intro Conference Call

Objectives: Share state and local EOQ goals and objectives. Review implementation strategies and next steps. Shortly before the call, each LHJ will receive provider order frequency schedules for review before the next call.

2 weeks later - Follow-up Conference Call

Objectives: Final preparations for provider roll-out. Review support materials and tools. By the time of the follow-up call, most LHJs should have already communicated the upcoming changes to their providers.

2 weeks later - One-on-one check-in call (Start Month)

Objectives: Answer questions and provide support.

Monthly – One-on-one check-in by phone or email (e.g. one month after start, just before bimonthly orders are due, just before quarterly orders are due, etc.).

See the EOQ Conference Call Schedule v4 for details.

Conference phone numbers and web links for the calls will be provided within the next few weeks. We will have a limited number of conference lines for each session. If your LHJ will require more than one line, please contact Karen Meranda as soon as possible.

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10/22/2010 - EOQ Kick-Off - All LHJ Conference Call:

It's finally here! The official kick-off for EOQ will occur next week. All LHJs are encouraged to participate in the conference call on October 26th, from 2:00 to 3:00PM.

Here's the agenda for the kick-off meeting:

- •EOQ Introduction a brief introduction to EOQ.
- •EOQ Basics a review of EOQ terminology and objectives.
- •Implementation Strategy a review of the regional implementation approach.
- •Data Analysis CDC and DOH analysis of provider ordering patterns at the State and LHJ level.
- •Support Tools a review of the support tools we've put in place to help LHJs and providers through the transition.
- •Next Steps a review of upcoming activities.

There will be plenty of time for questions during and following the presentation.

We have a limited number of conference lines. If there are a number of people in the same location, you are encouraged to gather in a conference room and use a single line where possible.

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11/05/2010 – EOQ Challenge – Third Month Results:

Congratulations! You've completed the third month of the EOQ Challenge – Reducing Single Antigen Orders. Another outstanding month! Single orders for Varicella and MMRV are not included in the counts because of the upcoming black-out dates for these vaccines. After making these adjustments, the statewide percentage of single antigen orders for October was an impressive 3.1 percent. Thanks go to each of you!!

Attached are the results, by LHJ, for the last three months:

See the EOQ Challenge-Reducing Single Antigen Orders Results.pdf for results by LHJ.

Even though the challenge period is over, we will continue to monitor single antigen orders and report the results. Your help is still needed to maintain these results and move our statewide percentage of single antigen orders to 3 percent or less.

Please feel free to contact Karen Meranda with your EOQ questions: Karen.meranda@doh.wa.gov or 360-236-3553.

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